

NIJ

NIJ Safe Schools Technology Program



Briefing to Law Enforcement & Corrections Technology
Advisory Council
August 14, 2002

Congress Creates a Safe School Initiative (SSI) October 1998

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FY 1999 Budget Language

\$210 million for a new Safe Schools Initiative including funds for prevention and technology

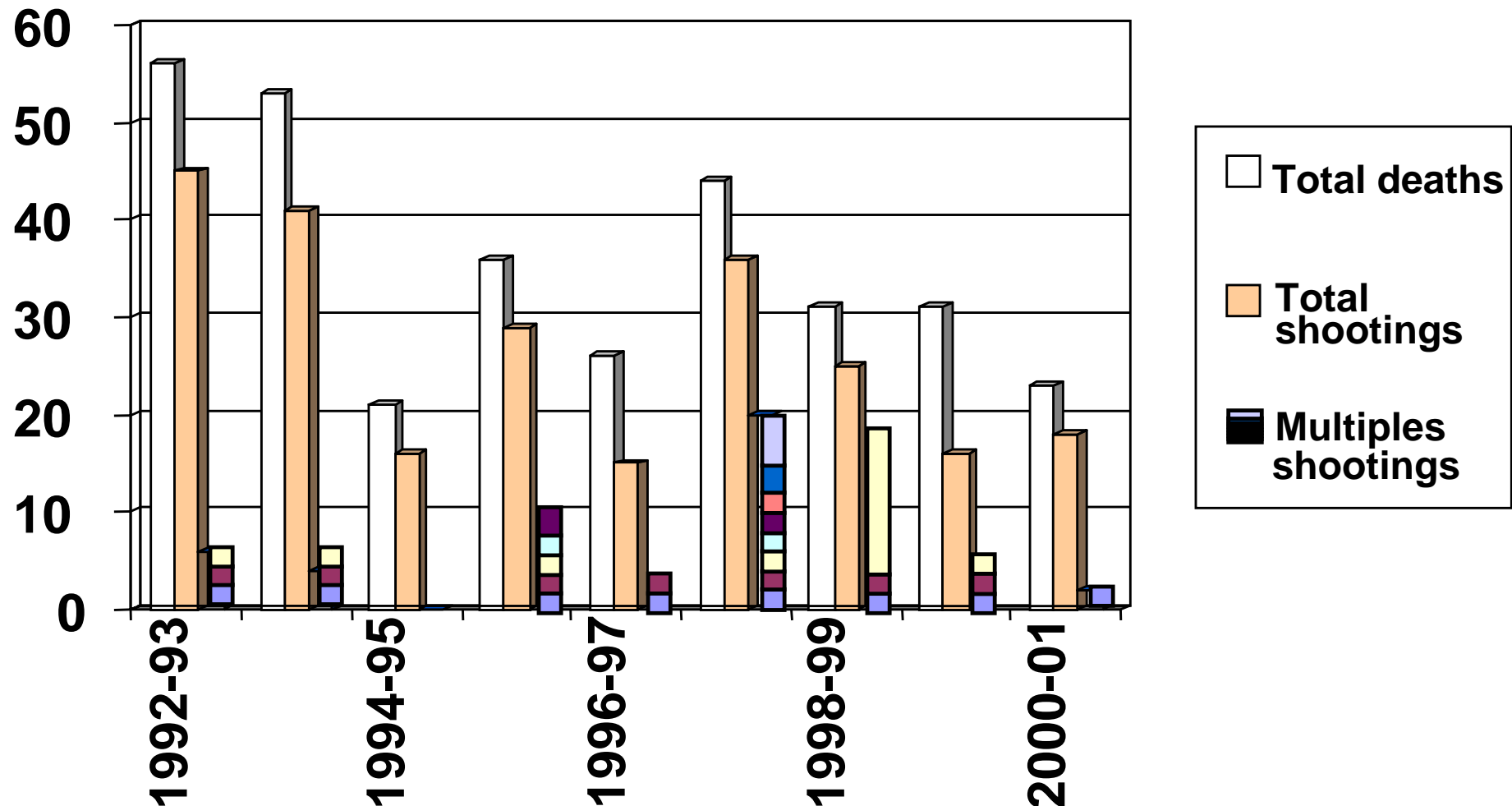
For NIJ:

“\$...10,000,000 is from funds available to the National Institute of Justice to develop new, more effective safety technologies such as less obtrusive weapons detection and surveillance equipment and information systems that provide communities with quick access to information they need to identify potentially violent youth.”

Source: Congressional Record - House, October 19, 1998

Background Statistics: School Deaths, School Shootings

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Source: Centers for Disease Control and Prevention, U.S. Department of Education, U.S. Department of Justice, and National School Safety Center, The School-Associated Violent Deaths Study, 1992-2001

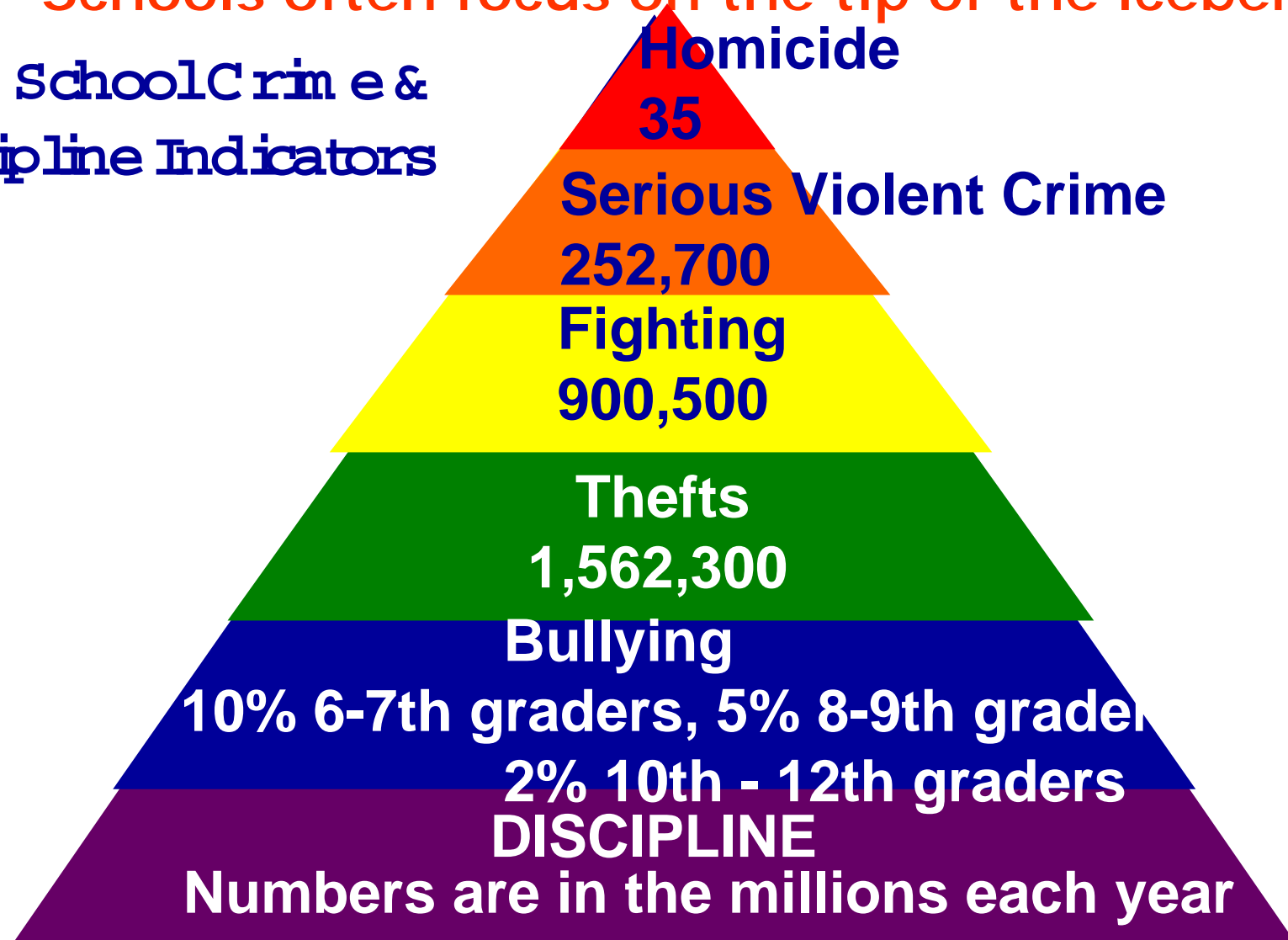
Background Statistics:

Source: Safe and Drug-Free Schools Program Briefing

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Schools often focus on the tip of the iceberg

1998 School Crime &
Discipline Indicators



NIJ's Response to Mandate:



Safe Schools Technology Program Objective

- Develop, test and evaluate school safety technology tools - ensuring that they are safe, effective, appropriate, and affordable.

Three pronged approach

- Identify problems and assess needs
- Develop, transfer, test, demonstrate and evaluate technologies
- Provide technology assistance: information & advice

Matching Technology to the Threat: Policy and Implementation Concerns

- **There is no technology fix for school crime**
- **Technology tools may help: Technology tools can only complement non-technical “tools” to promote safety:**
 - **Planning, Policy, Procedures**
 - **SRO’s -Committed & Trained**
 - **Information sharing**
 - **Crisis management planning & training**

Tourniquet or Band-Aid?

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- **Conduct a safety assessment**
- **This is or should already be done for fire or natural disaster incidents**
- **Use a team approach**
- **Consider technology tools as part of the response to meet each safety goal**

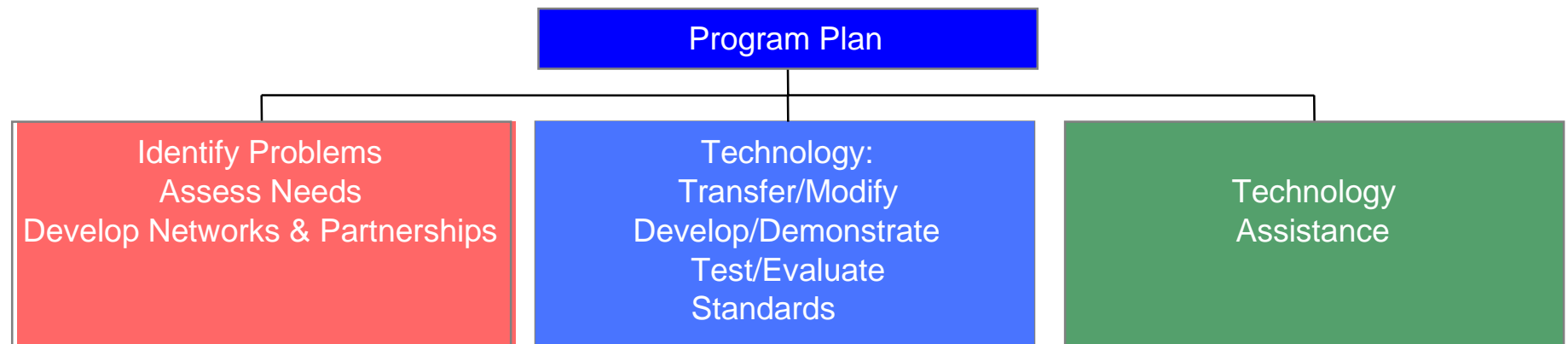
Band-Aid - Not necessarily bad

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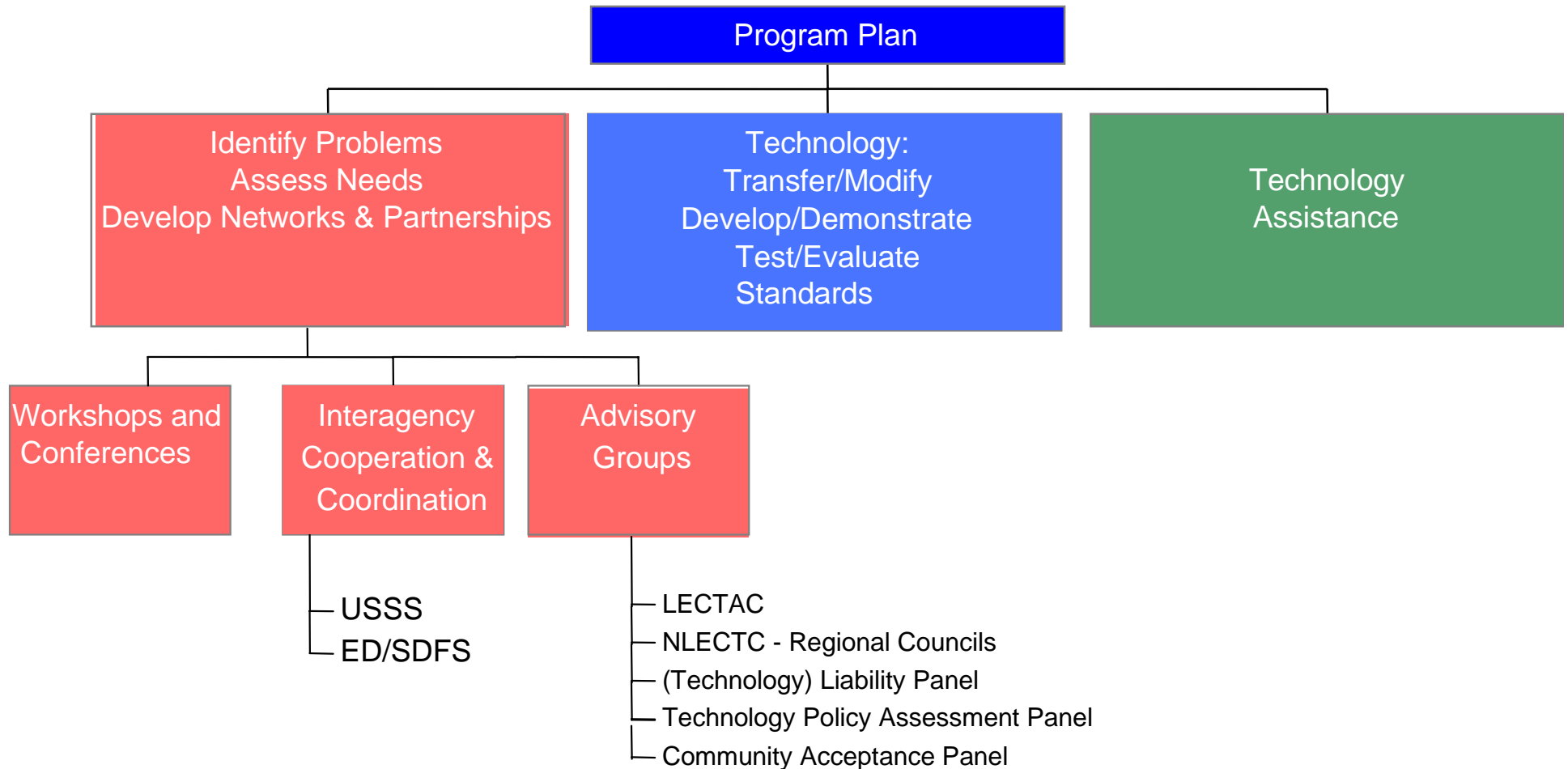
- **A small focused effort may be adequate if assessed safety risk is low**
- **Technology may supplement or complement other techniques with same goals**
- **Technology/manpower trade-offs**
- **Multiple benefits from “low intensity” technologies**

- **Higher risks may justify more extensive and complex technology (and other) tools**
- **Tourniquets - checked more frequently than band-aids**
- **Technology/manpower trade-offs**
- **Multiple benefits may be more difficult**

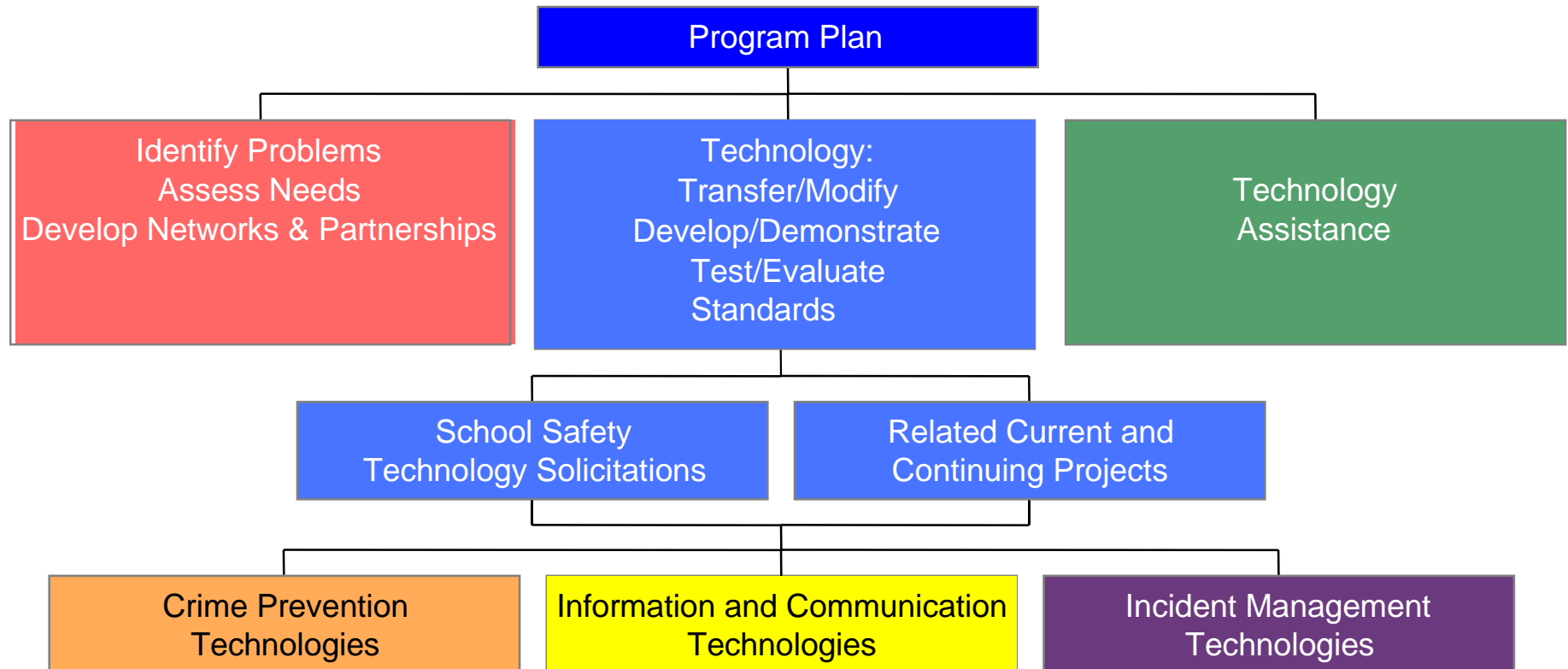
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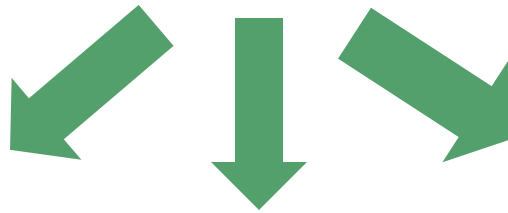


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Crime Prevention



Surveillance

Drug Detection

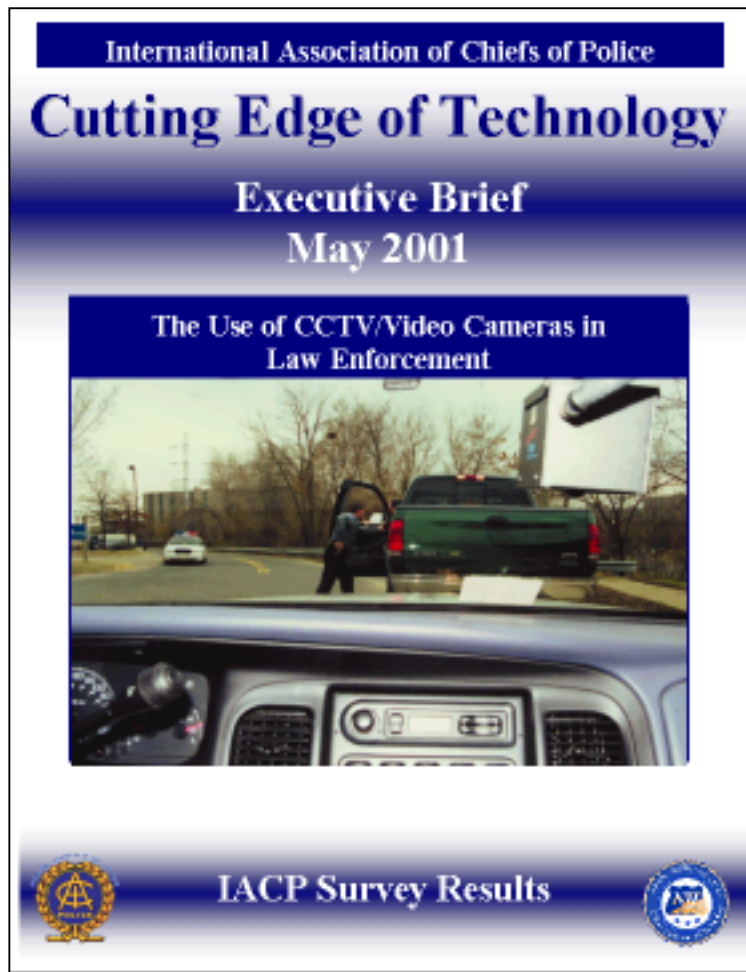
Concealed Weapons
Detection

Standards

Surveillance- IACP CCTV Survey

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The Use of CCTV/Video Cameras in Law Enforcement



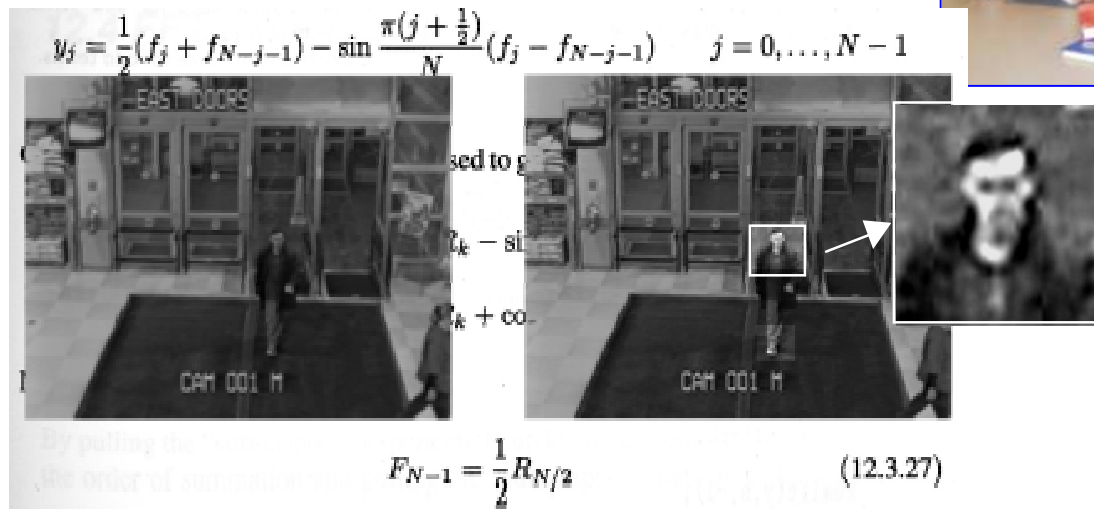
- Ascertain Current Applications
- Assess Impact of Use
- Implementation Considerations
 - Purpose for Use
 - Results/Benefits Anticipated
 - Social/Practical Concerns
 - Privacy
 - Operations
 - Civil Rights
 - Training
 - Funding
- Operational Issues
- Model Policies & Guidelines
- Legal Concerns
- Future Uses
- Published at: www.theiacp.org

Crime Prevention

Test and Evaluation of Surveillance Tools

Assuring problems are clearly defined

- Assessing the extent of current systems
- Determining problems still remaining



Developing/evaluating means to enhance images

- Applying mathematical formulae
- Improving the ability to recognize objects & people

Institute for Forensic Imaging

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Surveillance Tools for Safer Schools

Survey Results

- Interviews of School Safety administrators from 41 school districts in 15 states



- Have recent concerns about school violence led to changes in school safety plans?
- What types of safety technology are in use in American schools?
- How effective do these technologies appear to be?
- What type of technologies do school safety administrators wish they had?

- **Some of the Results**

Increased Concern?

- 66% major increase in concern over violence
- 71% major impact in security plans

Use of Safety Technology?

- 90% of school districts have cameras
- 55% have metal detectors
- 18% have entry control devices
- 87% utilize recording systems
- 40% have duress alarms

Institute for Forensic Imaging

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Surveillance Tools for Safer Schools

Survey Results

- **Some of the Results (continued)**

How effective is the technology?

- **67% believed cameras & recording systems to be effective or very effective**
- **44% believed weapon detectors to be effective or very effective**
- **33% for entry control devices**
- **21% for duress alarms**

What do they wish they had?

- **32% said they want entry control devices**
- **29% want more cameras or upgraded video systems**
- **Non-technology items: more safety personnel, better training, larger mental health staff**



Concealed Weapons Detection

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Crime Prevention

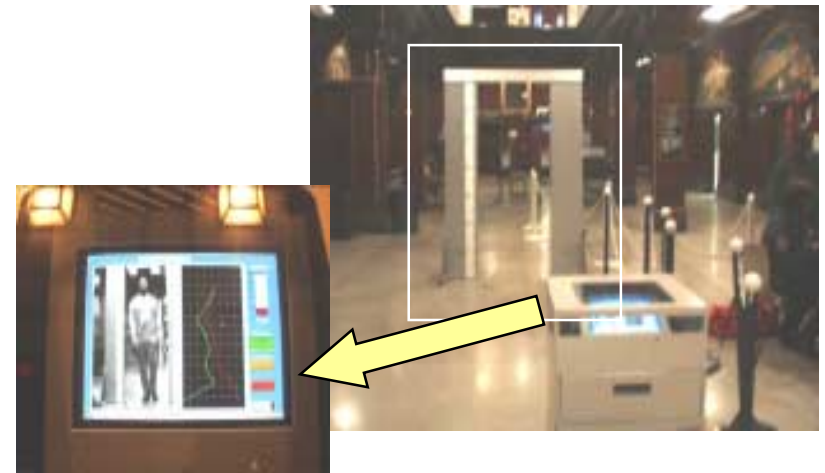


NLECTC - NE Air Force Research Laboratory

Develop user friendly, cost effective, transportable, concealed weapons detection technology

Successes in Washington Irving HS

- Will alarm on Razor Blades.
- Will identify location of alarmed objects, this will Speed up processing time.
- Will not alarm on non-ferrous metal such as Body Jewelry, Clothing buttons, some belt buckles, etc.



SecureScan 2000 installed in the lobby of Washington Irving HS, NYC School System

Drug Detection

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Crime Prevention



Mistral Security Inc.

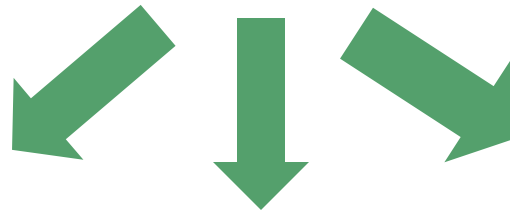
A non-toxic aerosol drug detection and identification system for marijuana, cocaine, heroin and methamphetamine



- Independent technical performance testing by NIST
- Field trials in progress in New Jersey schools
- Marijuana, Cocaine, Heroin, Meth
- Residues found in many locations

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Information and Communication



Information Analysis

Communications
Interoperability

Information Sharing

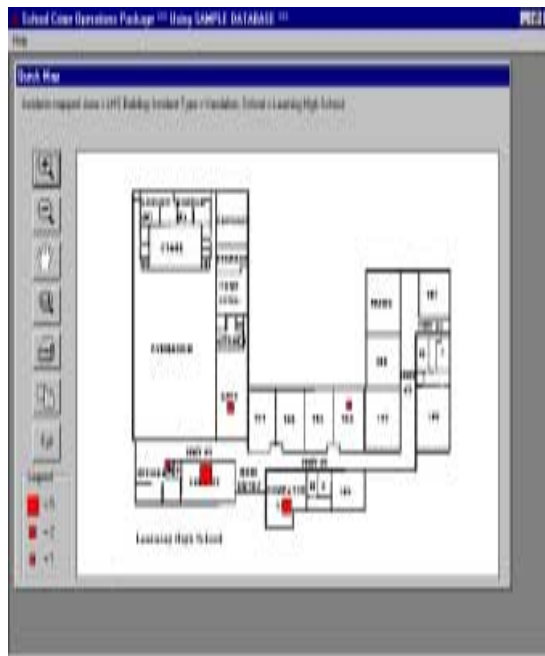
Information Analysis

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Information and Communication

Software Tool for Enhancing School Safety

A customizable, geographic information system software tool to help determine the level of school safety changes, examine school safety in context of explanatory factors, provide time-trend analysis, and reconcile measures of school safety.



- *School COP Available Now on CD*
www.schoolcopsoftware.com
- Being widely distributed at "COPS in Schools" training conferences
- 9 conferences have been held, at which approximately 1,300 CDs have been distributed. 150 CDs have been distributed through direct request.
- 25 conferences planned through Sept. 03

Information Analysis

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Information and Communication

Speech-To-Forms Translator

*Facilitates communication between school safety personnel, parents, and student
Increases effectiveness of SROs by reducing paperwork*

Language Systems, Inc.

School Police Officer Uses the Translator System to communicate with a Spanish-speaking parent & student



System translates and transcribes data obtained by the Officer onto a form



SYSTEM FEATURES:

- Records and transcribes verbal data obtained in officers' interviews with parents and students
- If respondent doesn't speak English, the system:
 - Translates English questions into Spanish
 - Translates Spanish responses into English
- User-extendable vocabulary in English and other languages

STATUS:

- Initial prototype system for the Los Angeles Unified School District (LAUSD). Police basic subject form has been completed for English/Spanish interviews
- Digitized recording and retrieval of all interview material is under development, and an audio verification capability is being added to the current verification display.
- Test and evaluation of prototype incident form system is planned for January 2002.

Communications Interoperability *NIJ*

Information and Communication

The many voice and data interoperability communication research, development, demonstration, and evaluation projects in the NIJ AGILE Program support directly and indirectly school safety and security objectives, especially for critical incident management.

Information Sharing

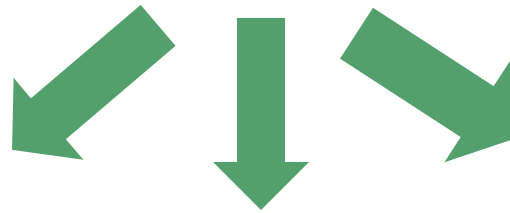
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Information and Communication

One school and police department student information sharing system established - by SE Center.

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Incident Management



Incident Planning

Incident Response

Incident Planning

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Incident Management



An interactive “Learning” Tool to assist school personnel in training for school safety problems

- Simulates real-life events
- Adaptive instruction (Tutorial/Scenarios)



Incident Planning

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Incident Management



An interactive Web-Based “Learning” Tool to assist School Resource Officers in training for school safety problems

- Simulates real-life events
- Adaptive instruction



Incident Planning

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Incident Management



An interactive Web-Based “Learning” Tool to assist School Resource Officers in training for school safety problems



- Simulates real-life events in a virtual environment
- Adaptive instruction



Incident Response

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Incident Management

Weapons Team Engagement Trainer (WTET)

Develop/commercialize a "Team" video-based, multiple room, training simulator

Features:

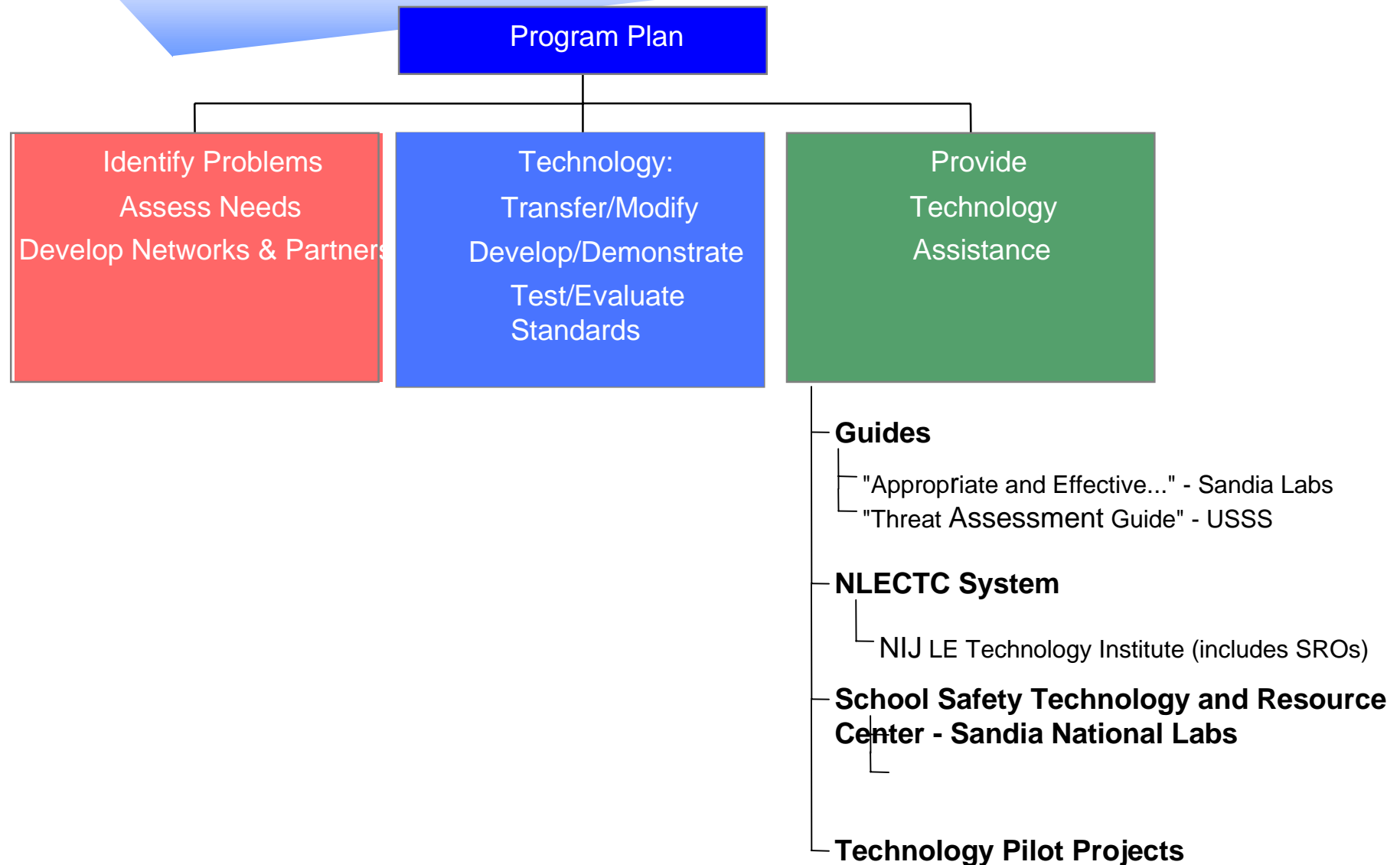
- Constant Aim Point Tracking
- Shoot Back and Trainee position location
- All Weapons are non-tethered (recoil action for realism)
- Video-branching with escalation/de-escalation points (less-than-lethal options)
- Record keeping database with optional instructor playback
- Wirelessly tracks each team member's position, and vulnerability to hostile fire

System Evaluation completed October 2001

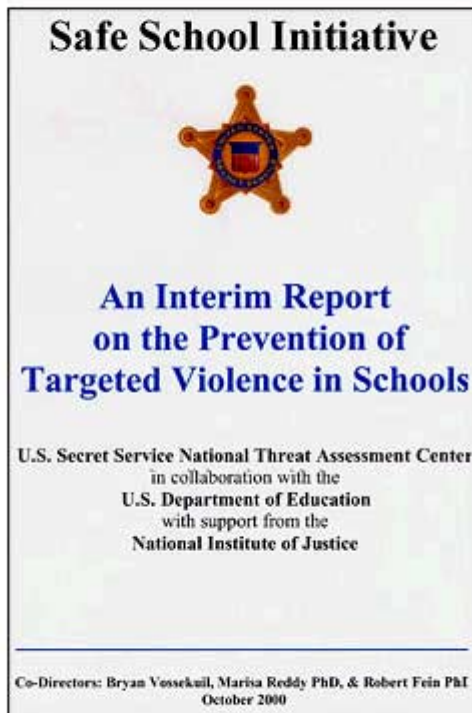
Participating Teams: Pennsylvania State Police (SERTS)
Los Angeles County Sheriffs Department
Kentucky State Police



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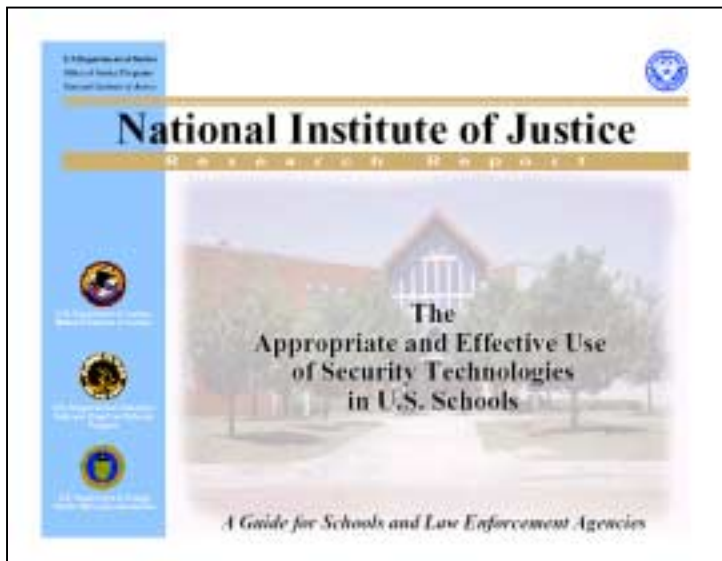
Technology Assistance



Released in October 2000, this was a joint effort between the U.S. Secret Service, the Department of Education and NIJ. The final report was released May 2002. On-line: www.ed.gov/pubs/edpubs.html

Technology Assistance

Provides guidelines to LE agencies and school administrators and encourages their collaboration as they decide what, if any, security technologies should be considered as they develop safe school strategies



An update to this report and a second volume on other safety topics will be available in the summer of 2003.

NLECTC SYSTEM

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- **Technology information dissemination**
- **Technology introduction & demonstrations**
- **Technology testing & evaluation**
- **Science & engineering advice and support**
- **Capacity building and training assistance**
- **Technology commercialization**
- **Needs identification**

Technology Assistance

Safe School Technology and Resource Center



Sandia National Laboratories

A national school safety and security technology resource for schools and police agencies

- Technical information
- Demonstration sites
 - New Mexico (Albuquerque & Navajo Nation), Texas, Mass.
- Technology Assistance
- Test and evaluation of technology



Challenges to Schools Acquiring Technology

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- **Careful assessment of problem**
- **Seek an honest broker**
- **Create a plan – where does technology fit?**
 - **Near term goals**
 - **Long term goals**
 - **Every day operations**
 - **Crisis response**

Challenges to Government and Industry Technology Providers

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- **Keep security technology as non-intrusive as possible**
- **Keep costs down**
- **Minimize training requirements**
- **Produce reliable and rugged products**
- **Design products for simple maintenance**
- **Understand the environment**
- **Understand the customer**

Technology Resources

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Department of Justice

Office of Justice Programs: www.ojp.usdoj.gov

National Institute of Justice: www.ojp.usdoj.gov/NIJ

Bureau of Justice Assistance: www.ojp.usdoj.gov/BJA

National Law Enforcement and Corrections Technology Center(s): www.nlectc.org

Justice Technology Information Network: www.justnet.org

NIJ's SST Program What Next?



Identify, Assess, Network, Partnerships - Continue

Community Acceptance Panel July 11, 2002

NASRO Conference July 14-19, 2002

LECTAC Briefing August 14, 2002

Technology RDT&E

– Crime Prevention:

- **Surveillance camera evaluation - Needs to be done**
- **Biometrics - Two projects planned in FY '03**
- **Bus security - Identify extent of problem and concern**
- **Drug testing of facilities - How much more TBD?**
- **Drug testing of students - Should NIJ start effort?**
- **Concealed weapon detection systems evaluation - Will Continue**

NIJ's SST Program

What Next?



Technology RDT&E

– Incident management technologies

- Computer based (CD ROM) training tools - Confirm need
- Web based training tools - Confirm need
- School vulnerability assessment template - planned
- Incident planning tool template - planned

• Technology Assistance

– Guides

- Update Volume I “Appropriate & Effective...”
- Produce Volume II: drug & alcohol detection, sensors & alarms, bomb threat awareness, deterring false fire alarms, communications for crisis response & crime deterrence
 - Sandia's School Safety Technology & Resource Center